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P152. A COMPARATIVE STUDY OF SERUM VITAMIN D LEVELS IN WOMEN WITH PRETERM AND NORMAL TERM DELIVERIES IN SOUTHWEST NIGERIA.

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Context: Vitamin D is a potent regulator of placental immunity, stimulating antimicrobial response, which suppresses inflammation. Studies have shown an association between reduced level of maternal serum vitamin D and preterm delivery. This study will contribute to further establishing the association between maternal serum vitamin D levels and preterm delivery, especially in Sub Saharan Africa and provide data to minimize the complications associated with preterm delivery.
Objective: To determine the levels of serum vitamin D in women with preterm deliveries and to compare this with women with normal term deliveries in Lagos, Southwest Nigeria.
Methods: Two hundred and six women were recruited for this study. This comprised of 103 women with preterm delivery and 103 women with normal term deliveries. Information about the duration of daytime spent outdoors, dressing style and the type of patient's skin complexion were obtained and maternal venous blood samples were collected immediately after delivery. Serum level of 25(OH)D was determined using the CALBIOTECH Vitamin D ELISA kit.
Results: The prevalence of vitamin D deficiency was higher in women with preterm delivery than in women with term delivery, 13.6% versus 0.9%, while the prevalence of vitamin D insufficiency was also higher in women with preterm delivery compared to women with term delivery, 9.4% versus 2.9%. The prevalence of sufficient vitamin D levels was higher for women with term delivery compared with women with preterm delivery 94.2% versus 76.7%. The Mean serum vitamin D level was higher in women with term delivery than women with preterm delivery 54.5 ng/ml versus 43.4 ng/ml, this was statistically significant $p<0.001$. Fair complexioned women had a higher mean serum vitamin D level than dark complexioned women in the preterm group ($p<0.021$) and being fair skin was less likely to be associated with vitamin D deficiency in the preterm group (OR 0.237 C.I. 0.065 – 0.866 $p<0.029$)
Conclusion: There is a high prevalence of vitamin D deficiency and insufficiency in women with preterm delivery than in women with term delivery in Lagos, Nigeria. These findings suggest the need to further explore the associations between serum vitamin D levels and preterm delivery to reduce feto-maternal morbidity and mortality in Nigeria and Africa.

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